

Mystery of the Great Pyramid

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by Tom Gilmore

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Astronomy

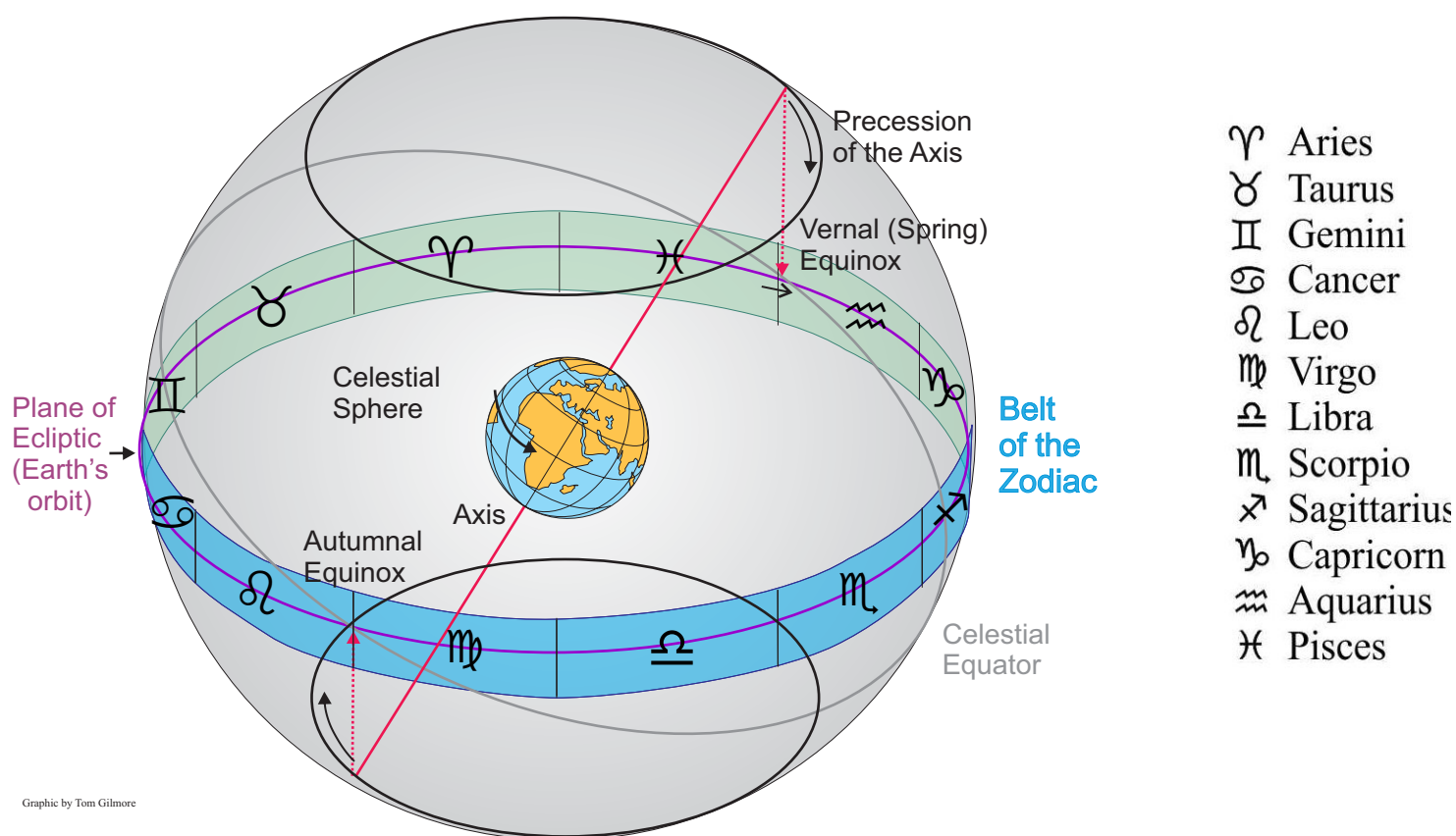
Before recorded history, the celestial sphere was segmented into constellations of stars for position reference.

The Earth axis tilts at 23.44 degrees from the plane of Earth orbit (called the **Plane of the Ecliptic**). Extending the Earth's equator to the celestial sphere is called the **Celestial Equator** (see diagram below). The intersection of the **Plane of the Ecliptic** with the **Celestial Equator** marks the beginning of Spring (Vernal Equinox) and the beginning of Fall (Autumnal Equinox). All of the Planets orbit the Sun in close proximity to the plane of Earth orbit, and this region (called the **Belt of the Zodiac**) is where all the Planets are always located on the Celestial Sphere

The Belt of the Zodiac contains 12 constellations of 30 degrees each. The "Signs" are shorthand symbols for the 12 names of the 12 constellations.

The rotation of Earth causes the axis to "wobble" in an ellipse in the opposite direction to the rotation (called a **precession of the axis**). The rotation and precession is illustrated below with black curved arrows.

Celestial Sphere and Zodiac



Astronomical Ages

The **Astronomical Ages** are based on the precession of the tilt of the Earth axis, and measured by the 12 segments (Signs) of the Belt of the Zodiac in terms of years. The astronomical ages are used as a rough delineation of long periods of time.

The vernal (spring) equinox is currently entering the back end of Aquarius (at 30 degrees Aquarius).

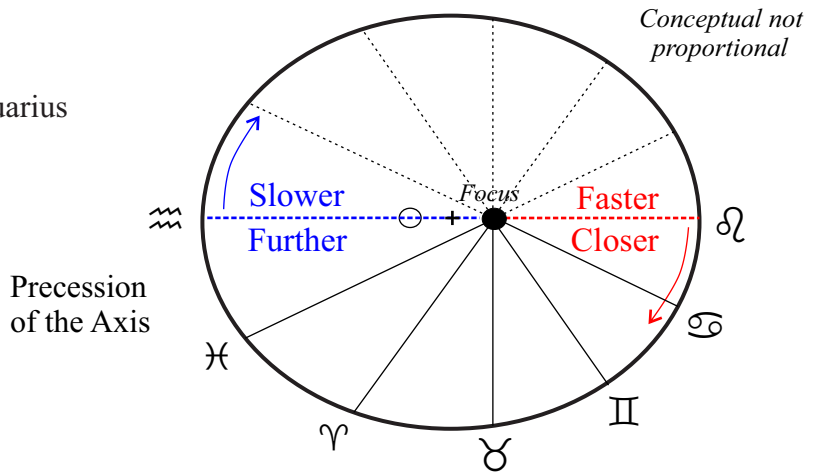
The precession is an ellipse where the rate of transit is slower the further from the active focus. Since the constellations of the Signs are known, it can be observed that the precession is currently approximately at the cusp moving from Pisces into Aquarius.

Current observations of the shift of the precession indicate it takes around 71.6 years to move 1 degree. This makes the Ages of Pisces and Aquarius ($71.6 \times 30 = 2148$ years).

The Nile Priests claim the precession at around 10,500 BC was taking 67.4 years to move 1 degree. This makes the Age of Leo ($67.4 \times 30 = 2022$ years).

These observations average to a circuit of
 $(71.6 + 67.4) / 2 \times 360 = 25,020$ years).
 The varying spans of the Ages between Leo and Aquarius
 are progressively averaged as shown below.

10,490 BC – Leo	2022 years
8,468 BC – Cancer	2045 years
6,423 BC – Gemini	2069 years
4,354 BC – Taurus	2095 years
2,259 BC – Aries	2121 years
138 BC – Pisces	2148 years
2010 AD – Aquarius	2148 years



The Sphinx Time Marker

The edges of the excavated enclosure around the Sphinx exhibits evidence of extensive water erosion that could only have been produced before the region turned arid, and the estimated duration of the water erosion (2000 years) added to the estimated time when the region turned arid, 8500 BC, computes to 10,500 BC. The Sphinx (a lion) is facing in the direction in which, due to the precession of the Earth's axis, the constellation of Leo (a lion) was rising on the eastern horizon at the vernal equinox in 10,500 BC.

The Titans were known to have pet lions they called "dogs". The stone relief at-right (cropped) shows Apollo seated with his "dog" at his feet.

Sirius is known as the "dog star" (and the "dog days of summer" are the stretch of seasonal time when Sirius is visible in the night sky)



cropped public domain photo

The Pointer of the Giza Plateau Layout

By overlaying the layout of the 3 stars of Orion's Belt on the 3 pyramids of Giza, it has been shown that the locations of the 3 pyramids match with the positions of the 3 stars.

The Orion layout of the Giza complex is sometimes thought to mean the complex is indicating Orion as the origin of the initial builders, but actually the Giza layout is **pointing** to the origin of the initial builders of the pyramids, because the celestial arc through the 3 stars of Orion's Belt intersects the star **Sirius**.

The Conclusion

Since the Sphinx has a probable age of 12,500 years, and is a (modified) statue of a lion, and faces the horizon where 12,500 years ago the astronomical Sign Leo was rising, and that the plateau layout points to Sirius (the closest solar system to Earth), and that the Titans were known to have pet lions they called "dogs", while Sirius is known as the "dog star", the postulate follows that the **Titans came to Earth from the star Sirius around 10,500 BC**.

The Great Pyramid and the Royal Cubit

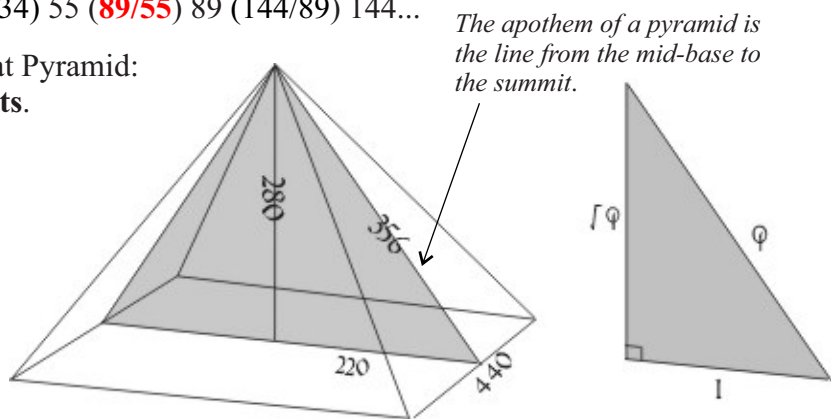
Phi is a progressive ratio between numbers where each successive number is the sum of the previous 2 numbers.
 3 (5/3) 5 (8/5) 8 (13/8) 13 (21/13) 21 (34/21) 34 (55/34) 55 (**89/55**) 89 (144/89) 144...

The Nile Priests gave two exact measures of the Great Pyramid:
 That the **apothem** measures exactly **356 Royal Cubits**.
 That the **base** measures exactly **440 Royal Cubits**.

Apothem of Pyramid = 356 Royal Cubits = 89x4
Half-Base of Pyramid = 220 Royal Cubits = 55x4

Applying the Pythagorean right-angle equation, the height is ~279.8857 Royal Cubits.

*The original gold cap of the peak of the pyramid brought the height to **280 Royal Cubits**.*



The measures form a "phi right-triangle" as illustrated above-right. This is shown by the relative lengths.

Half Base = 220/220 = 1

Apothem = 356/220 = **89/55** = 1.6181818 = **Phi**.

Height = 280/220 = 1.272727 = square-root of Phi (when Phi = 1.6181818)

The Royal Pi-Fraction (22/7)

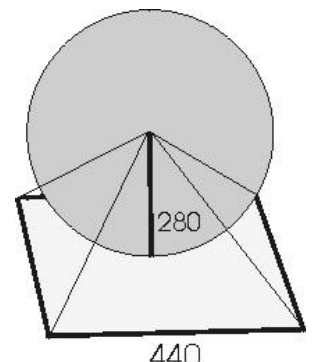
The ratio of base to height in the Great Pyramid "squares" the circle.
 (When using 22/7 for the value of Pi)

The circumference of a circle is (Pi x 2r).

Taking the height of the pyramid (280) as the radius of a circle, the circumference is (Pi x 560). Using the Royal approximation of **Pi = 22/7**,

(Pi x 560) = (**22/7** x 560) = (12320 / 7) = **1760**

The circumference of the base is 440 x 4 = **1760**.



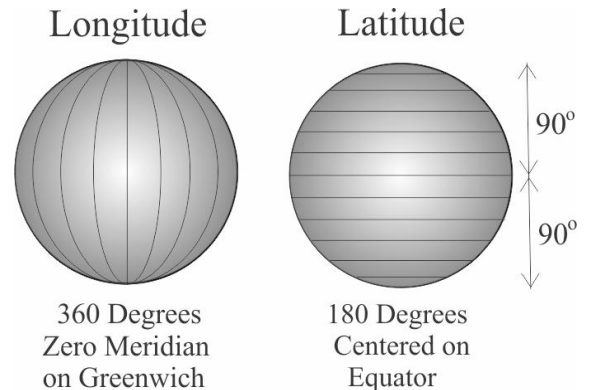
Base-12 Measures

Mathematical numbers were originally based on 12, evidenced by the names eleven and twelve which precede the “teens” (tens). Since humans think in base-10, if they had originated the numbers it would have been ten-one, ten-two, ten-three,... in the same way it is twenty-one, twenty-two, twenty-three. Many quantities are based on 12, with dozens (12) and grosses (144=12x12). With the exception of the meter, which applies only to distance, the actually coordinated time and distance measures are all based on 12.

Because the Earth rotates on its axis at a constant rate, equatorial measures can equate rotational **surface distance** with the passage of **time**.

Time and Distance Measures

Degrees Geographic Foot	Hours Cubit	Royal Cubit	English Statute Foot
360 degrees	24 hours	24 hours	24 Hours
60 minutes	60 minutes	60 minutes	1000 Miles
60 seconds	60 seconds	60 seconds	
100 feet	1000 cubits	880	5280 Statute Feet
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129,600,000	86,400,000	76,032,000	126,720,000

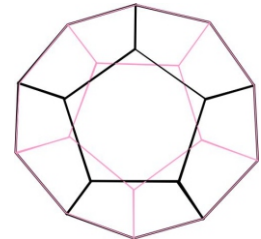


Each hour equals 15-degrees (360/24=15), and each of the 12 Signs of the Zodiac equals 30 degrees (360/12=30). In ancient Sumeria the Signs were called “double-hours”.

Hours are sub-divided into 60 minutes of 60 seconds (**12x5= 60**). These base-12 divisions are not natural to humans, who think mathematically in decimal (base-10).

The Dodecahedron Connection (Numbers 12 and 5)

The dodecahedron is associated with the gods (Titans). It is a spheroid with 12 pentagonal (5) faces (depicted at right by the edges). The faces of the crystal are intra-chiral, meaning the back (pink) and front (black) are flipped to each other, and this is the case regardless of which pentagonal face is viewed as the front face.



Human Subdivisions

Humans have applied decimal subdivisions to the base-12 time and distance measures, giving 100 “feet” to the geographic second, and 1000 “cubits” to the second of time.

A Cubit is 1.5 Geographic Feet (**129,600,000 / 86,400,000 = 1.5**)

The base of the Great Pyramid measures **750 Geographic Feet**

Thus, the base measures **500 Cubits (750/1.5)**

The base measures **440 Royal Cubits**, making a Royal Cubit .88 of a Cubit (440/500=.88).

The **Statute Foot** defines the 15 degree hour to be a surface distance of 1000 “miles” (for an equator circumference of 24,000 miles). The length of an actual human foot was commonly used locally as a measure unit, and this generally converted to about 6000 feet per mile.

The Royal Cubit is a Phi-measure. In 1593 the prevalent Masonic presence in British government allowed them to influence the British Parliament to declare there to be **5,280** feet to a mile by statute, making the English Statute Foot a Phi-measure (being exactly **0.6 of a Royal Cubit**):

(76,032,000 / 126,720,000 = 0.6)

The Statute Foot **approximates the Geographic Foot. (126,720,000 / 129,600,000 = 0.9777)**

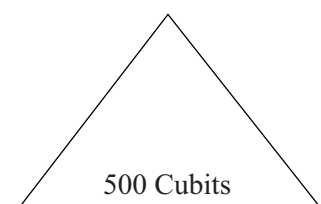
Great Pyramid Measures as Messages to the Future

The Great Pyramid Base Measures Time

The base measures **500 Cubits**

1,000 cubits equals 1 second of time, so 500 cubits equals ½ second.

Thus the base of the Great Pyramid measures 1/2 second of time, showing that the builders knew the exact circumference of the equator.



The “Pyramid Inch”

The Great Pyramid is built with a precision that may exceed that which modern building techniques could match.

Evidence suggests the Titans built a truncated pyramid up to the 50th layer, and the Kings Chamber on top of the truncated portion (and that Khufu completed the top portion). There are no inscriptions in the truncated portion, but in the ante-chamber of the Kings Chamber, a granite ceiling slab has a precise embossment of 25 equal divisions termed pyramid-inches, the length of which is 25.0265 British inches, making a pyramid-inch 1.00106 British inches.

Message of Knowing the Exact Solar Year

The floor of the antechamber to the Kings Chamber has a length of 116.2603 pyramid inches. Taking the length of the antechamber as the diameter of a circle, and using the 8 decimal value of Pi (3.14159265), the circumference is $(\text{Pi} \times D) = (3.14159265 \times 116.2603) = 365.2425$ pyramid inches, the exact number of days to a solar year.

Message of Knowing the Polar Radius of Earth

The Nile Priests claim the polar radius of the Earth is equal to **250,000,000 pyramid-inches**. This converts to $250,000,000 / 25 = 10,000,000$ embossment-lengths.

$10,000,000 \times 25.0265 = 250,265,000$ British inches / $39.37 = 6,356,744$ meters.
Pyramid-embossment Meter-in-inches

The current estimate of the polar radius is considered to be **6,356,752** meters.

6,356,752 -modern radius estimate
- **6,356,744** -pyramid radius
8 meters difference

The purpose of the embossment was to demonstrate to the future that the builders knew the polar-radius, which could only be accurately measured from Earth orbit,

showing that the builders of the Great Pyramid must have achieved space-flight.

Correcting the Meter to its Definition

The Meter is defined as 1/40,000,000 of the polar circumference (1/10,000,000 of a quadrant), but there are 10,001,960 modern meters of 39.37 inches to a quadrant, meaning the meter is smaller than its definition.

Converting to inches, the polar circumference quadrant is $10,001,960 \times 39.37 = 393,777,165$ inches.

Because the meter was declared in 1791 as being 1/10,000,000 of a polar circumference quadrant, the meter should be corrected to: **Corrected Meter = $393,777,165 / 10,000,000 = 39.3777165$ inches**

Pyramid Estimate of the Speed of Light

The speed of light varies slightly by wavelength, and due to practical limitations it is not possible to exactly measure the speed, and although it is estimated, scientists want to have a commonly used number. They averaged the currently estimated speed of light at various wavelengths and defined the speed as the distance light travels in 1/**299,792,458** of a second. This choice may have been influenced by the location of the Great Pyramid.

The decimal latitude (to 7 decimals) of the peak of the great pyramid is **29.9792458** degrees, and $29.9792458 \times 10,000,000 = 299,792,458$

If you multiply the **39.3777165** inch meter times the number of meters traveled in a second:

Speed-Of-Light = $(39.3777165 \times 299,792,458 = 11,802,829,071.46$ inches = **186,282.0245** miles/second.

“Pyrmet” Measure

The Coptic word “pyrmet” (behind our “pyramid”) is thought to mean “division of 10”. The division of 10 is 5x2.

Multiples of 5 in the Pyramid

In the Great Pyramid of Giza, multiples of 5 occur in numerous aspects of the interior.

- The floor of the King's chamber is 10 Royal cubits by 20 Royal cubits.
- The Kings Chamber floor is on the 50th layer of stones.
- The Queen's Chamber floor is on the 25th layer.
- The sum of length, width, and height of the King's Chamber is 5 times the sum for the coffer in the chamber.
- There are 5 flat stacked granite ceilings above the King's Chamber.
- **As covered before, there are 25 embossed lines in the Kings Antechamber.**

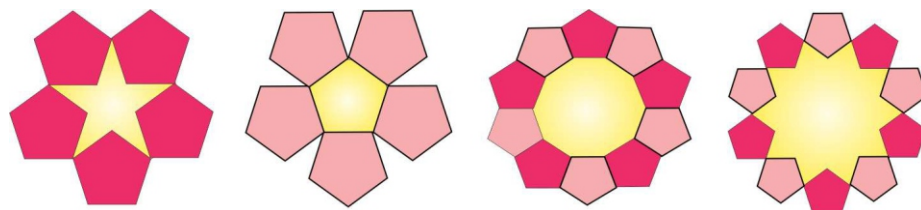
Geometric Relations between Pentagons and Decagons

Five upright pentagons arranged in a circle enclose a five-pointed star called a pentagram (shown at left).

Five inverted pentagons arranged in a circle enclose an upright pentagon (shown left middle).

Alternating 5 upright and 5 inverted pentagons by edges results in a decagon (10-sided shown right middle).

Alternating 5 upright and 5 inverted pentagons by vertices results in a 10-pointed star (shown far right).



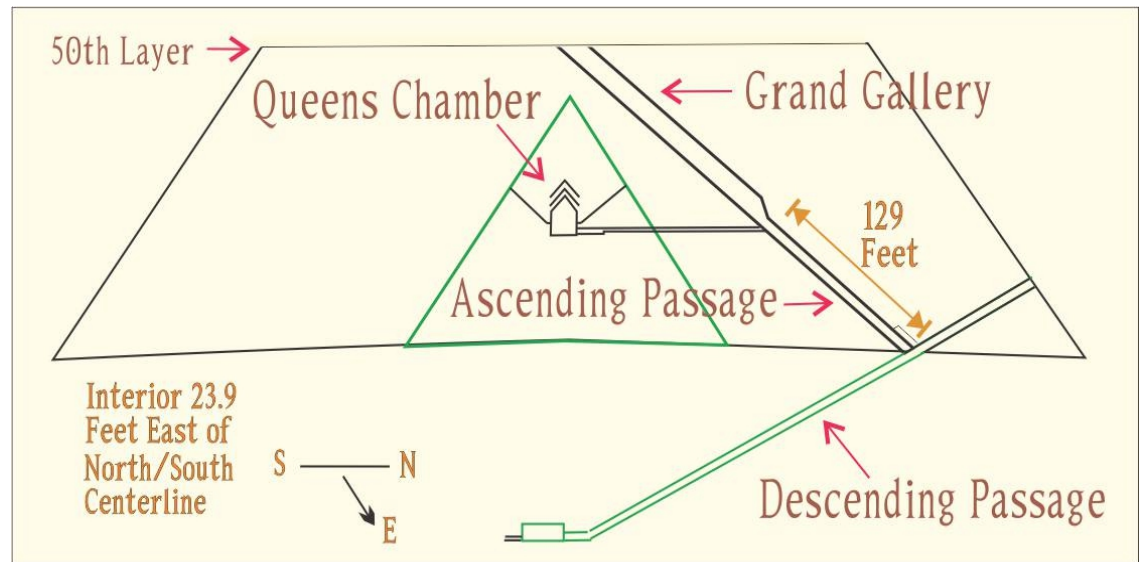
The “Remen”: A pace (two strides)

Evidence in the interior of the Great Pyramid indicate that the Remen is a pace of two strides of 2.3885 feet, making a pyramid-pace or **Remen = 4.7777 feet**.

Remen Example: There are 3 stone plugs a Remen long lodged at the base of the ascending passage.

The plugs have been estimated to each be just under 4.8 feet in length, which is the Remen, or **4.7777 feet**.

The Grand Gallery is 153.1 feet long and the floor is 8.6 feet wide, but there are raised shoulders 20 inches wide on each side, leaving a central ramp 3.4 feet wide (the same width as the ascending passage). The shoulders have 28 slots creating 27 shoulder intervals.



The slots of the Grand Gallery were evidently intended for wooden beams suspending 27 granite plugs for release into the ascending passage, which would have completely filled it, since $(27 \times 4.777 = 129)$, which is the exact length of the ascending passage (refer to illustration above).

“Pyrmet” (5x2) Remen Example: All the passages, shafts, and chambers below the 50th layer are estimated to be offset just under 23.9 feet east of the pyramid centerline

$5 \times (2 \times \text{stride length}) = 5 \times 4.7777 = 23.8888 \text{ feet}$.

One possible explanation of the eastern offset of the interior from the centerline is that initially there was a smaller pyramid (shown in green above) that the Great Pyramid was extended upon. The Queen's Chamber would have been centered, both north/south and east/west in this initial pyramid. Subsequently the larger pyramid truncated at the 50th layer was constructed, with the Grand Gallery serving as a celestial observatory. When the truncated pyramid was built over the initial one, it was too close to the edge of the solid western end of the plateau, and this did not allow the larger pyramid to be exactly centered east to west over it. And the builders used a pyrmet for the offset.

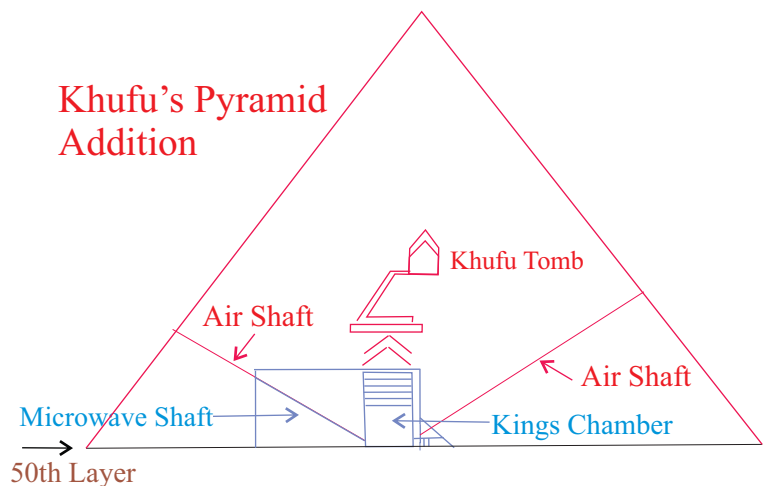
Purposes of the Great Pyramid

Queen's Chamber Hydrogen

Early explorers reported a salty encrustation on the walls of the Queen's (Combustion) Chamber, and that this chamber originally had a putrid smell. There is a recess in a wall of the Queens Chamber that appears to have housed a cooling tower. There are long opposite shafts of 8x5 inches that end 5 inches behind the chamber walls, with a narrow slot connecting to the interior. This suggests the chamber was used to produce hydrogen from chemicals entering from the angled shafts.

Kings Chamber Microwave

The Kings Chamber was built after the Titans were stranded on Earth. The Chamber was encased in sandstone in order to provide an angled shaft, the vector of which would have crossed the path of the star Sirius as it moved in the night sky of 10,500 BC. The hydrogen produced in the Queens Chamber could have been excited in the Kings Chamber to produce microwaves sent through the shaft. The microwave wavelength from hydrogen emission is 8.309 inches and the south shaft is slightly less than 8.4 inches wide.



Khufu's Tomb Pyramid

Issues regarding the date that the pyramid was built are raised by repairs that were found on stones incorporating organic materials that have been carbon dated to thousands of years before Khufu. With the exception of the Kings Chamber, there is a distinctly inferior construction above the 50th layer. These facts suggest that Khufu only completed the already long existing truncated pyramid. Air shafts were included from the north wall of the Kings Chamber to ventilate it. The microwave shaft was extended to the surface as an air shaft.

When Mamun broke into the pyramid in 820 AD no dead bodies or skeletons were found, and the entrance raised on the face of the pyramid was blocked by a swiveling stone wedged from the inside. This mystery is resolved by the theory that Khufu incorporated his burial chamber in the pyramidal top he added to the truncated pyramid, and when he was entombed his attendants wedged the entrance stone, released the 3 stone plugs to slide down and block the ascending corridor, climbed above the ceilings of the Kings Chamber, released a massive 120 ton stone slab (causing the crack in it) into a recession prepared for it, sealing themselves into the tomb with their mummified Pharaoh.

Between the Grand Gallery and the King's Chamber is a peculiar portcullis which is slotted on the side walls, apparently to allow thick slabs to be raised and lowered as baffles.

The Kings Chamber has 5 ceilings consisting of massive stone slabs with the peculiar property that while their lower surfaces are flat, their upper surfaces are deliberately tooled into dramatically irregular depressions. There is a narrow space between each of the layers.

There does not appear to be any structural purpose to the layers, but above them are angled slabs, similar to those placed above the Queen's Chamber (and the pyramid entrance), that serve to protect the chambers from collapse.

There is also a precisely fashioned coffer inside the Kings Chamber with the property that the sum of its width, depth and height is 1/5 the sum of the width, depth and height of the chamber. The coffer has been damaged by one corner being hammered to make the coffer resonate for tourists.

The baffle slots, the coffer, and/or the 5 ceilings may have been integral to the modulation of the hydrogen microwave transmission. **It is likely that any feature in the pyramid has an intended purpose.**

Ladder from the Sky

An element of Egyptian myth is the expectation of a "ladder from the sky", which may have been an expected rescue mission from space.

Stonehenge S.O.S Corroboration

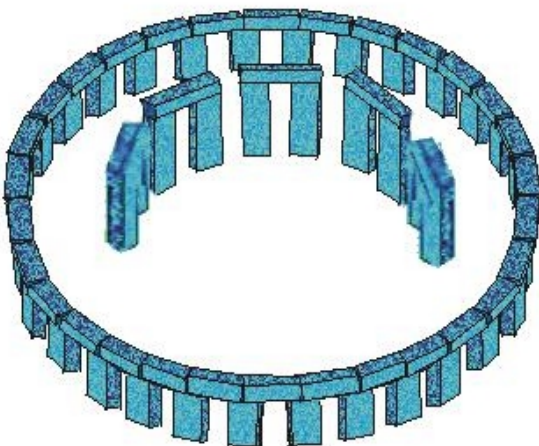
The Romans documented Stonehenge as being ancient as far back as 450 BC. Druids can be traced back to as far as around 2000 BC in Britain, but they lived starkly primitive lives, without clothing other than furs and hides. They lived solitary, nasty, brutish, and brief lives scraping an existence from the land. They are considered, perhaps falsely, to have practiced bloodthirsty human sacrifice at the sites of the megalithic circles. It is preposterous that they would build megalithic astronomically accurate engineering marvels, at great exertion, using primitive tools, for no practical purpose other than bloody sacrifice.

The megaliths at Stonehenge are a variety of sandstone harder than granite known as dolerite bluestone and sarsen bluestone. The sarsen slabs were brought from Marlborough Downs, about 20 miles north, but the more than 80 dolerite bluestone slabs, some weighing 50 tons, have been traced to a Welsh quarry 130 miles northwest.

The stones are rough and irregular, indicating that the appearance of the circle was not necessary to the purpose. If it had been intended to be a temple, the stones would have been refined. The stones have magnetic properties, and were transported a major distance in order to obtain them. This means the magnetic properties were integral to the functional purpose of constructing it. Stonehenge is aligned with all the major astronomical positions, but its axis is not pointed north. This means it was not meant as an observatory, but that its astronomical orientation was significant.

Merlin is reputed to have known the secret behind the mysterious stone circle. He is said to have described it as the "Dance of the Giants" in which stones were sent through the air to their destinations. The "Giants" reference is to the Titans, who were up to 9 feet tall. The "Dance" reference is to the appearance of electric arcs as they flash and crackle. This is consistent with the folklore that Merlin was reputed at times to wear a metal cap and shoot lightning (electricity) from his staff.

There is a circular outer ditch surrounding the stone circle, and breaching this at a northeastern angle is an outlet of a broad "roadway". This flat road-like area terminates at an angle to a flattened strip running east/west called the "Cursus". The Cursus resembles a landing strip and this supports the notion that Merlin was correct when he stated that the Titans brought the stones to the site through the air.



The Secondary SOS Signaling Method

The purpose of the arc of "doorways" could have been to serve as an angled support for a massive parabolic radio dish tilted toward the star Sirius.

Knowing the Titans possessed genetic science, the wealthy and influential Egyptians were mummified (and organs sometimes placed in separate jars) in imagined expectation they could be revitalized when the Titans returned.

Sirius is the closest solar system to ours, but because of the 8.7-lightyear distance of Earth from Sirius (which would dissipate the transmission), a blasted pulse may have been produced, which involved electric arching, and employed the magnetic properties of the stones.

Poured Block Construction Theory

In building the pyramid, various methods of transporting and raising the blocks have been proposed. A popular theory is that they slid them over rolling logs to the base and leveraged them up with stout long poles with short fulcrums, raising them inches at a time and wedging them to reposition the levers.

The conventional theory of the construction of the pyramid involves building massive ramps of an almost equal mass as the pyramid itself to haul the stones up (and then removing all traces of the ramp).

There is evidence a spiral ramp may have been on the surface of the faces during the construction, but this evidence suggests the ramp would be too narrow and steep to have been the means of hauling the blocks up. However, these ramps fit in with the poured block theory of the construction.

A discrepancy between the assumed limestone quarry site and the blocks on the pyramid is that the quarry contains a soft limestone, and the blocks on the pyramid are hard. The chemist Joseph Davidovits found evidence that the limestone blocks were poured like concrete, that they were not quarried as huge blocks at all, and not dragged from the quarry and shaped to fit, but were simply chipped in relatively small chunks from the bedrock and pulverized at the site into powder, bagged, and transported in manageable quantities to the pyramid where a slurry of limestone concrete was mixed using lime-ash, natron, and other unknown ingredients, combined with water, and this was packed into wooden reusable forms to solidify. This would account for the tight fits between blocks, provided by the uniformity of the molds, and account also for the absence of chisel marks. It would have eliminated the need for massive ramps, as the ingredients could have been carried up in containers by individual workers and mixed at the pouring site (or a slurry could have been produced at the base and carried up in buckets). The canal dug from the Nile to the pyramid would have served to supply water for the limestone concrete and water for the workers. Strong evidence was found for this poured block theory, such as air pockets found in the interior of the pyramid stones, and that the fossils in the stones are jumbled, not stratified as would occur in naturally formed limestone.

When Mamun tried to penetrate the granite plugs blocking the ascending passage, nothing he could do could even dent the plug, and they were forced to attack the surrounding limestone to bypass them. No natural stone has ever been found even close to the hardness of the plugs (which must have been cast).

Great Pyramid Egyptology

Herodotus -- 500 BC

Around 500 BC Herodotus documented his visit to Egypt and his observations of the Great Pyramid. This constitutes the first historical record concerning the pyramid. According to Herodotus, Nile scholars told him that 100,000 men worked on building the Great Pyramid for 3 months and then another 100,000 men replaced them. He wrote it took 10 years to build the causeway from the river to the plateau, and then 20 more years to build the pyramid itself. Herodotus described "machines formed of short wooden planks" positioned on the face of the work in progress, and he said that the casing stones were installed from the top down.

According to the French chemist Joseph Davidovits the Greek translation of the description of the building method should read "boat-shaped forms constructed of short wooden planks".

Abdullah Al Mamun -- 820 AD

Arab historians have left a dramatic account of the adventures of Abdullah Al Mamun. Mamun dreamed of mapping the Earth and charting the stars. It was not possible with the knowledge extant in 820 AD, but the caliph, in his readings, had encountered a book on astrology which claimed that detailed accurate maps and charts were hidden in a chamber underneath the Great Pyramid at the end of a slanting corridor. Such maps were thought to have existed in the fabled Golden Age of 2600 BC, and were credited with enabling one ruler to control the world. Mamun had such an ambition to rule the world, and he mounted an expedition, determined to find the intellectual treasure there. He played up for the men that there was immense treasure to be found in gold and artifacts, and lured them to undertake extraordinarily arduous efforts with the promise of a share in the booty, but the investigation, although succeeding in finding the slanting corridor, turned up nothing at all, for the pyramid was empty. Aside from debris the only object inside the pyramid was a coffin-sized marble rectangular coffer twice as long as it was deep and wide. It had no lid and it was empty. Mamun and his crew faced daunting obstacles in penetrating the pyramid. The entrance was hidden, and even knowing its supposed general location was of no use in finding the exact spot. The crew began boring a tunnel in the limestone, but the stone was so hard the only method they found effective was to heat the stone with fire and then douse it with vinegar to induce surface cracking. Using this slow difficult process they bored 100 feet. In desperation, before abandoning the shaft they used explosives. By a fluke of fate a worker heard a sound of something falling that had been dislodged by an earlier explosion, and this led them to change course and intersect the descending passage. Retracing the incline they found the entrance 49 feet above the base, blocked by a swiveling stone wedged from the inside. At the bottom of the corridor was the predicted room but it was empty and looked unfinished.

A granite plug could be seen blocking an intersecting ascending corridor, but nothing the Arabs could do would even dent the plug. So they again attacked the limestone (which surrounded the plug). Three granite plugs in a row had to be bypassed, and then the corridor choked with rubble had to be cleared, and then the Arabs reached the Grand Gallery and the empty Queens Chamber at the end of a level corridor. From the corridor to the Queens Chamber the gallery ascended another 156 feet to an antechamber of the King's Chamber, which is an imposing 34 feet long, 17 feet wide, and 19 feet high. In the chamber there was only the granite coffer. They tore up parts of the floor and dug at the walls before giving up and accepting failure. All their work had been for nothing, living in barren quarters, working in cramped steep corridors with stifling heat from the torches, undergoing backbreaking labor with only the expectation of riches supporting their will.

John Greaves -- 1638 AD

When Englishman John Greaves went to Egypt to study the Great Pyramid, the pyramid was surrounded by rubble piled 38 feet high, most of it scrap from the wasteful stripping of the limestone casing for use in building Cairo. All of the marvelous inscriptions were gone, and nothing that had been transmitted through thousands of years was left. Greaves attempted to measure the base and height but the immense piles of debris made it impossible to get accurate figures. Nevertheless his measurements were of interest to many of the great minds of the time, most notably Isaac Newton who hoped to find the circumference of the Earth from it. In fact if the measurements had been correct this would indeed have been possible, but Newton would have to wait for independent scientific work to uncover the length of a geographic degree. Without the circumference of the Earth, Newton could not confirm his theory of gravitation. Greaves could not explore the interior fully because bats had inhabited the pyramid. The guano was treacherously slippery, and the swarms of them flying were a serious hazard.

Napoleon Bonaparte -- 1798 AD

Napoleon was as crazy as they come. The meter had been recently adopted in France and was defined to be 1/10,000,000 of a quadrant arc through Paris from the North Pole to the equator. This is an unfortunate choice for Earth measure because the rotating Earth expands the girth at the Equator in relation to the distance from pole to pole. When Napoleon vanquished the local squatters, he set his savants to the task of examining the Great Pyramid, but they were inhibited by the bats which had been there an additional 160 years depositing guano since Greaves visited. Using Turk laborers, they dug out sand and debris from the corners of the north face and discovered two depressions in the bedrock where cornerstones, now removed, had originally been placed. This made the original dimensions evident, although still extremely difficult to measure due to debris along the north face between the cleared corners. At the peak was a truncated platform 33 square feet in area. From there they measured the apothem or distance from the peak to the center of the north face base. Legend said that this distance should equal a Greek stadium in length, and according to Herodotus a stadium was 400 cubits long. Egyptian sources indicated the base length was 500 cubits. The actual ratio of the apothem to the base is 0.80909, so when the savants divided the apothem by 400 and multiplied it by 500 they obtained the length of the base as they had measured it. This meant that by their rough measure a cubit must be 0.4618 meters in length. A 24 volume work was published but it did not convince the skeptics. The report included the Rosetta Stone however, and that proved to be the key to deciphering Egyptian hieroglyphs.

Richard Howard-Vyse -- 1837 AD

In 1765 Nathaniel Davidson discovered a small hole at the very top of the Grand Gallery that led into a 25 foot passage to a low ceiling chamber above the King's Chamber. The floor was the upper surface of the 9 megalithic granite slabs forming the ceiling of the King's Chamber. The ceiling of this chamber was a similar row of 8 immense slabs. In 1837 whilst extensively exploring the pyramid site, Colonel Howard-Vyse blasted through the tough granite to reveal 4 more similar chambers above the one found by Davidson, extending 40 feet up to a gabled roof of huge sloping limestone blocks. Egyptologists now knew that the walls and floor of the King's Chamber are of granite, surrounded by limestone. The ceiling of the King's Chamber, of 9 immense slabs of granite, are flat below but unfinished and very irregular on their upper surfaces. Above the ceiling is a low space between another row of 8 immense slabs, which are flat below and irregular above. Above this second ceiling is a low space between another ceiling of 9 immense slabs, above that 9 more slabs, and finally 8 immense slabs on the fifth ceiling, for a total of 43 granite beams lined up north-south. The upper previously sealed chambers contained some red-paint cartouches on the inner walls, and one of them were identified by Samuel Birch of the British Museum as belonging to King Suphis (Khufu). Similar cartouches had been found in the quarries where many of the stones used on the pyramid had been determined to have originated. This confirmed the account of Herodotus ascribing the building of the Great Pyramid to Khufu.

Howard-Vyse concluded that the layered ceilings were designed to relieve the pressure from the immense weight of the 200 more feet of solid stone above. His work also established that the 9 inch wide openings in the side walls of the King's Chamber extended to the surface high on the pyramid, and when cleared, served to ventilate the chamber, keeping it at a constant 68 degrees, and supporting the theory it served as a repository for standard weights and measures.

When Howard-Vyse dug out the mid-section of the north face he uncovered 2 original stones of the disputed outer casing, not only proving it had been covered, but establishing an estimated angle of 51 degrees 51 minutes for the slope of the faces.

John Taylor & Charles Piazzi Smyth -- 1860 AD

John Taylor was a religious advocate who wanted to use the Great Pyramid to prove the hand of God was in all things mysterious. In reading that the Nile 'Priests' (scholars) claimed the Great Pyramid was a "monument to the transcendent number", he was inspired to find the proof. He found that by dividing the perimeter by twice the height he arrived at a number very close to Pi (3.14159). He had discovered that the pyramid was a mathematical expression as well as a geographic standard. Another religious zealot, the Scottish Charles Piazzi Smyth, took up the standard of the dying Taylor, and came up with what he called the "pyramid inch", 1/25 cubit, which was very nearly equal to a British inch. In a twist of fate his theory fueled the rejection of the French meter as a standard in Britain. Smyth claimed that the perimeter in pyramid inches was exactly 1000 times the number of days in a year. Skeptics observed that numbers could be found for all kinds of correlation if the units of measure were tweaked enough.

Smyth continued to claim that his calculations were proof that master builders doing God's work constructed it shortly after 4004 BC when, according to Irishman James Usher, God created the world.

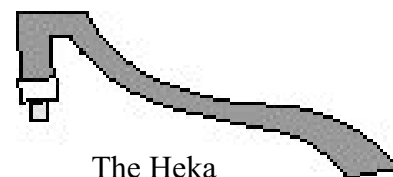
William Flinders Petrie -- 1880 AD

Petrie went to Egypt to use the latest scientific equipment to obtain exact measures of every dimension of the Great Pyramid. He failed in this, but one observation he made was crucial. He noted that the precision of construction was so exact that over the entire length of the base the error in angle and distance was less than a thumb's breadth. The descending passage was so straight that over its 350 foot length it erred less than a quarter of an inch. However, he noted that at the King's antechamber there was a marked drop in excellence of stonework. This is a clue concerning the early history of the pyramid and the 50th layer of stones, which is at the level of the top of the Grand Gallery and of the Kings Chamber floor.

A. E. Wallis Budge -- 1895 AD

The Director of Antiquities at the British Museum, A. E. Wallis Budge, translated the Book of the Dead texts. The early pyramid texts such as from the pyramid tombs of Unas and Pepi, are inscrutable even when translated. Egyptologists never figured them out. The Papyrus of Ani misleads researchers even further from the meaning of the texts. Central to the Book of the Dead is a picture of a man wearing a Jackal head, bending over the prone form of Osiris, and applying a strange apparatus, the Ur-Heka, to Osiris' lips.

To know what this device is, requires one know the pre-history myth of King Enkidu of Babylon. Enkidu fell into a coma after having been stung by a desert scorpion loosed on him in his sleep. While his brother Gilgamesh went to the ends of the Earth in search of an antidote, the Order of Isis maintained the comatose body of Enkidu by administering fluid foods through the mouth by means of the Heka.



Osiris is the Egyptian version of Enkidu. When Gilgamesh failed to return and Enkidu died of old age, his body was cut into small pieces and scattered far and wide from Babylon over the world. Isis (the Order) searched for and retrieved most of the body pieces, and he was reassembled as Osiris in Egypt. The pyramid texts are recounting this ancient history, but their remembrance of it is already confused and ritualized. This history is the legacy of the Nobility who considered themselves descended of Enkidu.

Richard Anthony Proctor -- 1898 AD

The British astronomer Richard Proctor wrote a book expounding the theory that the first stage in the evolution of the Great Pyramid was in a form truncated at the 50th layer, which serves as the floor of the Kings Chamber and is also where the removable ceiling slabs of the Grand Gallery are located. Citing the extraordinary linear precision, along the true meridian, of the descending passage under the pyramid, Proctor adduces that alpha Draconis would have shone down the passage at the 30th parallel (where the pyramid is located) at the constructed angle of 26 degrees 17 minutes. Sighting thus, and using water troughs, each layer of stone could be oriented north and laid perfectly flat. He accounts for the intersecting ascending passage, which angles at the exact same incline as the descending passage, as being necessary for continuing the process after the extension of the descending passage exited the narrowing side of the pyramid. A reflecting pool at the junction is suggested by the fact that the stone at this point is much harder, smoother, and finely jointed than before or after along the passage. The ascending passage abruptly changes to a gallery 28 feet high, and by tapering to the top, forms an observation slot precisely bisected by the meridian through the North Pole. As an astronomer, Proctor recognized this as precisely that employed in modern astronomical observatories. In support of the theory, Proctor points to the marked reduction of quality of stone work above the 50th layer, and to the fact that the area of the 50th level has half the area as the area of the base.

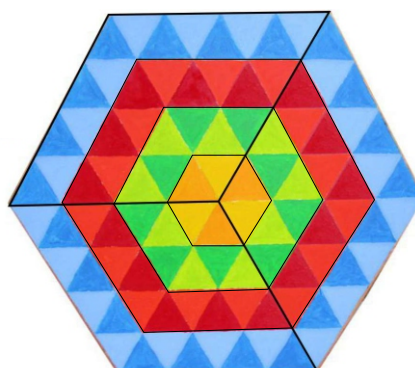
Early Egyptologists did not entertain the notion that an advanced technological society predated written history, so while recognizing the merit of the premise that the Grand Gallery was an observatory, they assumed that primitive methods were used by scribes sitting in the recesses and recording star positions. However, the precision (of angles of orientation to significant stars) that is built into the pyramid suggests a highly sophisticated timekeeping and astronomical record-keeping was in place. Our cultural amnesia is gradually being peeled back as evidence of worldwide ancient technology continues to be revealed, and ancient myth is steadily becoming recognized as historical records that are culturally distorted.

Howard Carter -- 1920

In the 1880's there was an Egyptian fad craze around the world. Many of the obelisks were removed and taken to other countries. One is in New York's Central Park. Mummies were discovered in the thousands, and they were ground into powder to sell to ignorant Asians as an aphrodisiac. The country was ransacked. Archaeologists were crowded side by side on roped off plots in the Valley of the Kings, competing like prospectors along a placer creek in hopes of striking it rich. Pickings were thin as Howard Carter made a last stab to keep his benefactor funding the work of excavation, when he stumbled on the incredible find of Tutankhamun's tomb. A new mystic mood toward Egypt was arising, and the coincidences surrounding "the curse of Tutankhamun's tomb" fueled this movement. Soon there was a flood of mystic assertions about the Great Pyramid.

Pyramid Power -- 1930

The shape of the Great Pyramid is unique. Khafre's pyramid right next to it is almost as tall, but it is steeper. Khufu's pyramid (Great) angles at 51 degrees 52 minutes, while Khafre's is at 52 degrees 20 minutes, resulting in much less mass. The significance of 51 degrees 52 minutes is that this angle incorporates the exact ratio of $1/2\pi$. No other pyramid has this slope. The shape of the Great Pyramid has unusual properties that manifest, according to the "pyramid power" advocates, in the abeyance of natural processes. Even pyramids of wood or cardboard in this exact shape are claimed to mummify small carcasses even in moist conditions. One researcher claimed it could sharpen razor blades. Others pursued the notion that meditating inside this pyramid shape would unite the mind with the direct insight of the cosmic intelligence.



Cubes, Hexagons, Diamonds and Triangles